

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Treasure County Conservation District
PO Box 288
Hysham, MT 59038
2. Type of action: Conservation District Application to Change Water Reservation #43P
30147780
3. Water source name: Bighorn River
4. Location affected by project: Sections 2, 10 and 11, T04N, R34E, Treasure County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This application is to add a point of diversion and place of use to the Treasure County Conservation District Water Reservation water right (42KJ 10003-00). A flow rate of 2.23 CFS (1,000 GPM) and a maximum volume of 355 AF/YR of the Treasure County Conservation District water reservation will be used for center pivot irrigation on 114.5 acres (8.73 GPM/AC and 3.1 AF/AC). The proposed place of use is south of Interstate Highway 94 approximately 3 miles south of Bighorn, MT and includes 80 AC in the SE Section 2, 11.5 AC in the SESW Section 2, 21.7 AC in the N2N2NE Section 11, and 1.3 AC in the NENENW Section 11, T04N, R34E, Custer County. The 2.23 CFS will be diverted from the Bighorn River using the Big Horn – Tullock Water Users Association dam and headgate located in the SESWNE Section 10, T04N, R34E. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife, and Parks
Montana Department of Environmental Quality
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Natural Resource Conservation Service
United State Fish and Wildlife Service

Part II. Environmental Review

1. Environmental Impact Checklist:

<p>PHYSICAL ENVIRONMENT</p>

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – The Bighorn River below the confluence with the Little Big Horn River is not listed as chronically or periodically dewatered by the Montana Department of Fish, Wildlife, and Parks. The proposed use will appropriate Conservation District water reserved for irrigation purposes as planned. The median flow at the proposed point of diversion is greater than 2,679 CFS for all months within the proposed period of diversion. Diversion of 2.23 CFS of water reserved for irrigation use will not dewater the Bighorn River.

Determination: No significant impact

Water quality – The Bighorn River from the Crow Indian Reservation boundary to the mouth (confluence with the Yellowstone River) is listed as water quality category 5 by the Montana Department of Environmental Quality. This category includes waters where one or more applicable beneficial uses are impaired or threatened and a TMDL is required to address the factors causing the impairment or threat. This source is listed as fully supporting agricultural uses and as not fully supporting drinking water. The beneficial use support for primary contact recreation and aquatic life has not been assessed. None of these beneficial uses is threatened. The proposed use of water for high efficiency center pivot sprinkler irrigation will not impair the water quality on this source.

Determination: No significant impact

Groundwater – Irrigation using water from the Bighorn River has no likely impact on groundwater quality or quantity. Infiltration of irrigation water may locally increase the availability of groundwater.

Determination: No significant impact

1. **DIVERSION WORKS** - The Applicant proposes to divert water from the Bighorn River in SESWNE Section 10, T04N, R34E, Treasure County via the Big Horn – Tullock Water Users Association dam and headgate. The water will be conveyed for approximately 12,000 feet through the canal to a secondary point of diversion in the S2N2NW of Section 2, T04N, R34E. The proposed secondary diversion will use a Goulds model 12CHC12 vertical turbine pump operating at 1800 rpm to pump water at 2.23 CFS into 4,420 feet of buried 10-inch PIP pipeline to the center pivot. The proposed diversion is already an established point of diversion for other irrigation projects. The addition of another water right using the Big Horn – Tullock Water Users diversion works and canal is not likely to cause any significant impact.

Determination: No significant impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program, there are 7 animal species of concern and 1 special status species in the proposed project area. There are 2 plant species of concern and 1 potential species of concern. Animal species of concern include Spotted Bat, Hoary Bat, Great Blue Heron, Burrowing Owl, Spiny Softshell turtle, Snapping Turtle, and Sauger. The Bald Eagle is a special status species in the area. Plant species of concern include Bush morning-glory and Persistent-sepal Yellow-cress. Western Centaury is a potential plant species of concern. According to the Montana Sage Grouse Habitat Conservation Map, this project is within general sage grouse habit. The project is consistent with the Montana Sage Grouse Conservation Strategy according to a letter from Carolyn Sime, Project Manager, dated September 23, 2019. The proposed project is consistent with the current agricultural use of land in the area and is not likely to impact threatened or endangered species or create barriers to migration or movement of fish or wildlife.

Determination: No significant impact

Wetlands – There are no wetlands in the proposed project area.

Determination: No impact

Ponds – There are no ponds associated with the proposed project.

Determination: No impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – According to the USDA Natural Resources Conservation Service, the predominant soil type in the project area is Wanetta loam, deep, 2 to 4 percent slopes. This soil is well drained and non-saline to very slightly saline. Edgar loam, 8 to 15 percent slopes also makes up the soil type in the project area. This soil type is also well drained and non-saline to very slightly saline. There should be no saline seep from this irrigation project. There are no anticipated adverse impacts associated with the geology or soil type in the project area.

Determination: No significant impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – Existing vegetative cover in the area is agricultural. High efficiency center pivot irrigation will increase productivity. The installation of pipelines and pivots may contribute to the establishment and spread of noxious weeds. It is the responsibility of the property owner to monitor for and implement measures for noxious weed control.

Determination: No significant impact

AIR QUALITY – Irrigation of land already used for agricultural purposes has little potential to adversely affect air quality.

Determination: No impact

HISTORICAL AND ARCHEOLOGICAL SITES – NA-project not located on State or Federal Lands.

Determination: Not applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - No additional demands on environmental resources are recognized.

Determination: No impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: Not applicable

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – The proposed project is located on privately owned agricultural land. The project will not impact access to recreational or wilderness activities.

Determination: No impact

HUMAN HEALTH – No impacts to human health have been identified for the proposed irrigation project.

Determination: No impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No_ **x** ___ *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact
- (b) Local and state tax base and tax revenues? No significant impact
- (c) Existing land uses? No significant impact
- (d) Quantity and distribution of employment? No significant impact
- (e) Distribution and density of population and housing? No significant impact

- (f) Demands for government services? No significant impact
- (g) Industrial and commercial activity? No significant impact
- (h) Utilities? No significant impact
- (i) Transportation? No significant impact
- (j) Safety? No significant impact
- (k) Other appropriate social and economic circumstances? No significant impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized

Cumulative Impacts: No cumulative impacts are recognized

- 3. *Describe any mitigation/stipulation measures:*** The proposed project is subject to the Mitigation Plan outlined in the Montana Sage Grouse Habitat Conservation Program letter from Carolyn Sime, Project Manager, dated September 23, 2019. A measurement condition will be placed on the water right as required by the Treasure County Conservation District reservation.
- 4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The alternative to the proposed project is the no action alternative. The no action alternative prevents the property owner from utilizing the agricultural land to the full potential and prevents the Conservation District from fulfilling their goal of utilizing reserved water for irrigation. The no action alternative does not prevent or mitigate any significant environmental impacts.

PART III. Conclusion

- 1. *Preferred Alternative:*** Issue the change authorization if the applicant proves the criteria in 85-2-402 MCA are met.
- 2 *Comments and Responses:*** None
- 3. *Finding:***
Yes__ No_x *Based on the significance criteria evaluated in this EA, is an EIS required?*

There are no significant impacts associated with the project so an environmental assessment is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Jill Lippard
Title: Water Resource Specialist
Date: 2/19/2020